SUMMARY

This report presents the results of the travel time and speed surveys for the Alameda County Congestion Management Program (CMP) network for the year 2004. The results indicate that overall traffic conditions and the severity of traffic congestion on Alameda County freeways has slightly worsened since the 2002 studies and arterials have improved, although there are specific locations where some notable changes have occurred. The survey program included the following elements:

- "Floating car" travel time surveys on all Alameda County freeways (90 survey segments) and designated CMP arterial roads (197 survey segments) during the 4:00 to 6:00 P.M. peak period.

- Travel time surveys on selected ramp movements and "special segments" (23 survey segments) during the P.M. peak period.

- Travel time surveys on selected freeway segments (45 survey segments) during the 7:00 to 9:00 A.M. peak period.

- Travel time surveys using both auto and transit travel between ten pairs of origins and destinations across the three bridges in Alameda County.

- Bicycle Counts at selected intersections using count data supplied by the local agencies.

The following table lists the locations of figures in this report, which illustrate the levels of service on each CMP road segment in each area of the county.

Figure	Area	LOS	Time Period	Page
2	Countywide	"F" Only	A.M. and P.M.	19
3	Countywide	All	A.M. Peak Hour	27
4	Northern	All	P.M. Peak Hour	31
5	Upper Central	All	P.M. Peak Hour	33
6	Lower Central	All	P.M. Peak Hour	35
7	Southeastern	All	P.M. Peak Hour	37

SYSTEM PERFORMANCE

Overall Average Speed and Corridor Performance

The overall average speeds on the freeway system during the p.m. peak period decreased by 1.3 miles per hour between 2002 and 2004, while the average arterial speeds increased by 1.1 miles per hour. There appears to be an improvement in speeds on certain freeway routes (see Table 7) such as I-880 northbound from Fremont to Oakland and I-680 southbound in the Sunol area that could be attributed to roadway improvements. Two freeway corridors are experiencing degradation in service levels (see Table 7): I-580 southbound from Oakland to Hayward and SR 13 in Oakland. Overall, arterials have remained stable or slightly improved in certain segments since the 2002 surveys (see Table 8). Most notable is SR 84 in Livermore where travel times have been cut in half because of the construction of the Isabel Parkway and the realignment of SR 84. However, over this two-year period, there are no overall trends that can be readily identified.

LEVEL OF SERVICE "F" SEGMENTS

The 2004 surveys revealed that twenty-two (22) segments are operating at Level of Service "F" during the P.M. peak period. Of these segments, fifteen (15) are on the freeway system, six (6) are located on arterial routes, and one (1) segment is on a freeway-to-freeway ramp. In addition, nine (9) segments operated at LOS "F" during the A.M. peak period surveys. The number of segments operating at LOS F remains the same as twenty two (22) in the P.M. and by five (5) in the A.M. in comparison to 2002.

LOS "F" Segments (non-grandfathered)

A total of fourteen (14), nine (9) freeway segments and five (5) arterial segments, operated at LOS "F" during the P.M. peak period in 2004 in this category. Nine (9) of these fourteen (14) segments are operating at LOS F for the first time.

- I-80 WB: Toll Plaza to the SF County Line. Jurisdiction- Oakland New LOS F)
- I-238 WB: I-580 to I-880. Jurisdiction – Alameda County/San Leandro
- I-580 EB: I-680 to Santa Rita Road. Jurisdiction – Pleasanton
- I-580 WB: Center to I-580/I-238. Jurisdiction – Alameda County
- I-580 EB: Harrison to SR 13. Jurisdiction – Oakland (New LOS F)
- I-880 SB: I-980 to 23rd Avenue. Jurisdiction – Oakland (New LOS F)
- SR 13 NB: Moraga to Hiller. Jurisdiction – Oakland (New LOS F)
- SR 84 EB: Toll Plaza to Thornton. Jurisdiction – Fremont (New LOS F)
- SR 84 EB: Thornton to I-880. Jurisdiction – Newark (New LOS F)
- SR 84 EB – Pleasanton-Sunol Road/ Vallecitos Nuc. Center. Jurisdiction – Alameda County
- Hesperian NB: Grant to Lewelling. Jurisdiction – Alameda County
- Adeline NB: MLK Jr.South (at Standford) to MLK Jr.North (at the Adeline split). Jurisdiction–Berkeley (New LOS F)
- Park/23rd WB: Santa Clara to Encinal. Jurisdiction – Alameda (New LOS F)

- SR 77 (42nd) EB: I-880 to E. 14th. Jurisdiction – Oakland.(New LOS F)

LOS "F" Segments Included in 1991 CMP Baseline ("Grandfathered")

The remaining eight (8) segments operated at LOS "F" during the 2004 P.M. peak period were also at LOS "F" during the 1991 CMP baseline year (and are therefore grandfathered).

- I-80 EB: I-580/80 Merge to University Avenue. Jurisdiction- Emeryville/Berkeley
- I-80 WB: University Ave to I-580 Split. Jurisdiction- Berkeley/ Emeryville
- I-80 WB: I-580 split to the Toll Plaza. Jurisdiction - Oakland
- I-880 SB: I-238 to A Street. Jurisdiction- Alameda County/Hayward
- SR 92 EB: Clawiter Road to I-880. Jurisdiction - Hayward
- SR 13 Ashby EB: College to Domingo. Jurisdiction - Berkeley
- Decoto Road WB: Union Sq. to Alvarado-Niles. Jurisdiction -Union City
- SR 13/SR 24 Interchange: SR 13 NB to SR 24 EB. Jurisdiction - Oakland

LOS "F" Segments in A.M. Peak Period

The A.M. peak period travel time surveys were conducted on selected freeway segments only, and include only a portion of the major roads in Alameda County. During the 2004 surveys, A.M. peak period data was collected for 45 segments. Nine (9) segments operated at LOS F in the 2004 surveys compared to fourteen (14) segments in 2002.

- I-80 WB: I-80/I-580 Split to the Toll Plaza. Jurisdiction - Oakland
- I-80 WB: Toll Plaza to the San Francisco County Line. Jurisdiction - Oakland
- I-238 NB: I-580/SR 238 to I-880 NB/SB Split. Jurisdiction - Alameda County/San Leandro
- I-580 WB: I-205 to 1st Ave. Jurisdiction - Alameda County/Livermore (New LOS F)
- I-580 WB: 1st Ave to Portola. Jurisdiction – Livermore (New LOS F)
- I-580 WB: Portola to Tassajara. Jurisdiction - Alameda County (New LOS F)
- I-880 SB: Stevenson to SR 262/Mission. Jurisdiction –Fremont (New LOS F)
- I-880 SB: SR 262/Mission to Dixon Landing. Jurisdiction - Fremont,
- I-880 NB: I-980 to I-880/80 merge. Jurisdiction – Oakland (New LOS F)

The freeway segments with the most congested A.M. traffic conditions are I-80 on the approaches to the Bay Bridge, I-238 in Hayward, I-580 over the Altamont Pass into Livermore, I-880 in Fremont, and I-880 in Oakland.

IMPROVED SEGMENTS

Table 1 list twenty-four segments that operated at LOS "F" during the 2002 surveys, but operated at an improved Level of Service in the 2004 surveys. Improvements on I-680 and SR 92 could be related to the completion of construction activities during the past two years. The improvements on the four arterial segments could be related to new signal timings.

Table 1 - Improved Segments
Segments at LOS "F" in 2002 and not in 2004

	CMP Route	Direction	Segment Limits		2002 LOS (Speed)	2004 LOS (Speed)	Prior LOS F
			From	To			
P.M. PEAK PERIOD							
1.	I-80	EB	Toll Plaza	I-580 Merge	F (14.2)	D (43.2)	'93-'02
2.	I-80	EB	University	Central	F (27.7)	D (43.5)	'91-'92, '96-'97,'02
3.	1-238	EB	I-880	I-580	F (28.4)	D (47.2)	'91-'92,'94,'96-'97,'02
4.	I-580	EB	Santa Rita	Portola	F (22.9)	E (32.9)	'02
5.	I-580	EB	Portola	1st Ave	F (23.5)	E (37.2)	'02
6.	I-880	NB	Decoto	Alvarado-Niles	F (24.0)	D (42.5)	'02
7.	I-880	NB	Alvarado-Niles	Tennyson	F (19.7)	E (39.8)	'00-'02
8.	SR 24	EB	I-580 On Ramp	Fish Ranch	F (22.5)	E (39.9)	'91-'97,'02
9.	SR 92	EB	San Mateo County Line	Toll Plaza	F (25.2)	A (65.9)	'97-'02
10.	SR 92	EB	Toll Plaza	Clawiter	F (22.3)	B (59.6)	'91-'94,'96-'02
11.	SR 84/Fremont	WB	Peralta	Thornton	F (7.4)	E (12.3)	'91-'92,'94,'02
12.	SR 123/San Pablo	NB	53rd	Stanford	F (9.9)	E (12.2)	'02
13.	I-80/I-580 I/C		I-80 SB	I-580 EB	F (16.2)	E (20.7)	'91-'92,'97-'02
14.	I-580/I-680 I/C		I-680 SB	I-580 EB	F (25.8)	B (58.4)	'92, 02
15.	I-580/I-680 I/C		I-680 SB	I-580 WB	F (28.5)	B (51.0)	02
A.M. PEAK PERIOD							
16.	I-80	WB	Central	University	F (29.7)	E (36.7)	'97,'00-'02
17.	I-580	WB	Center	I-580/238	F (15.6)	C (54.9)	'02
18.	I-580	NB	SR 24 On Ramp	I-80/I-580 Split	F (26.7)	B (58.3)	'02
19.	I-680	SB	SR 84 (Niles-Canyon)	SR 238/ Mission	F (28.2)	A (61.0)	'97'02
20.	I-680	SB	SR 238/ Mission	Scott Creek	F (25.8)	A (65.4)	'02
21.	I-880	SB	A Street	SR 92 /Jackson	F (21.9)	E (40.6)	'97-'98,'00-'02
22.	SR 24	EB	I-580 On Ramp	Fish Ranch	F (26.5)	E (33.1)	'02
23.	SR 84	WB	I-880	Toll Plaza	F (7.8)	D (46.3)	'02
24.	SR 92	WB	I-880	Clawiter	F (23.1)	B (55.7)	'02
25.	SR 92	WB	Clawiter	Toll Plaza	F (9.4)	D (42.9)	'02
26.	SR 92	WB	Toll Plaza	San Mateo County Line	F (16.7)	A (63.5)	'02

ORIGIN-DESTINATION SURVEYS

Peak period travel times were surveyed between ten pairs of Origin and Destinations (O-D) in Alameda County for auto, transit, and in one case, bicycle, and in another case a HOV lane. Because of changes in transit service in Newark, Livermore and Pleasanton, destinations for four (4) O-D pairs were changed for the 2004 surveys and were not included in the analysis of trends.

Of the remaining six (6) O-D pairs, auto travel times increased on four routes (Emeryville-Berkeley, Oakland-San Leandro, Fremont-Alameda, Alameda-Oakland) and decreased on two routes (Fremont to San Jose, single occupant vehicle and HOV). Auto travel time between Fremont and San Jose, including travel in HOV lane, has improved significantly for the second monitoring period in a row, 39 percent for single occupant vehicle and 21 percent for HOVs. This may be due to job losses that occurred in computer industry in the Silicon Valley in the past few years.

Transit travel times decreased or stayed the same on three routes (Emeryville-Berkeley, Fremont-San Jose, Alameda-Oakland) and increased on two routes (Oakland-San Leandro, Fremont-Alameda). One O-D pair (Pair 7) is HOV only. The maximum increase in transit travel time occurred between Fremont and Alameda with a 53-minute increase (76 %) compared to 2002. This could be indicative of reduction in transit services.

Comparing auto and transit travel times to each other shows that transit services appear to be worsening while auto travel times are improving. In the 2004 surveys, transit travel times range between 2 to over 5 times longer than that of auto travel. Two pairs, Hayward-Newark and Fremont-Pleasanton, have transit travel times that are over 5 times longer than auto. Emeryville-Berkeley, Oakland-San Leandro and Oakland-Pleasanton O-D pairs are the only exceptions whereby transit travel times are less than double of auto and then only slightly so. In the 2000 and 2002 surveys, transit times ranged from 1.3 to around 4 times longer than auto.

This year for the second time, auto travel time on the 3 bay bridges in Alameda County is included in the LOS Monitoring Report. While the travel time does not represent a true "home" to "work" origin-destination pair, it does provide information on travel time across the Bay for monitoring purposes. The end points were between I-880 and I-80 in Alameda County and SR 101 in San Francisco and San Mateo Counties.

The results are summarized in Chapter 5, and show that there are clear directional travel patterns. In general, travel times across the Dumbarton Bridge and San Mateo Bridge have decreased since 2001. While the travel time improvement across the San Mateo Bridge is due to the addition of one lane on each direction, the travel time improvement across the Dumbarton Bridge could be due to the commuters shifting to the improved San Mateo Bridge to cross the bay. For Dumbarton Bridge, the most significant decrease is in the a.m. westbound peak direction where the travel time has decreased 56 percent, from 32 minutes to 14 minutes. The San Mateo Bridge shows decreases in all direction except for the a.m. westbound peak direction where the travel time increased slightly (1 minute). The most significant decrease across San Mateo Bridge was in a.m. westbound peak direction where the travel time decreased 43% from 27 minutes to 15.5 minutes. This could be due to the increases

found on the Bay Bridge as commuters seek alternatives routes during construction. The Bay Bridge travel times have increased on a.m. westbound peak direction and p.m. westbound non peak direction, and travel time along other directions either decreased or remained same. The significant travel time increase (38 percent) was along p.m. peak westbound non-peak direction which increased from 17 minutes to 23.5 minutes. This could be due to the construction on the Bay Bridge.

BICYCLE COUNTS

For the second time, bicycle count data is included in the LOS Monitoring Report. As agreed in 2002, bicycle counts were collected by the local jurisdictions at twelve (12) major intersections across the County for the 2004 LOS Monitoring Study. Except for one location (Redwood Road and Grove Way in Alameda County) counts were collected at the same locations. Of the eleven (11) intersections, six (6) showed an increase in the bike usage and five (5) showed decrease.